

AMENDMENTS TO THE CLAIMS

What is claimed is:

Claim 1 (previously presented). A method for processing a substantially heterogeneous composition to a substantially homogeneous liquid solution comprising: providing a heterogeneous medium having an interface surface region; and applying energy means directly to the interface region of the heterogeneous medium in an amount sufficient to create vapor bubbles manifesting rapid radial growth and rapid collapse.

Claim 2 (currently amended). The method of claim 1, wherein the energy means is applied to the interface of the heterogeneous surface in the form of discrete ~~short~~ pulses of a given frequency to create said vapor bubbles.

Claim 3 (currently amended). The method of claim 2, further comprising introducing said energy means directly to the interface region and recovering said homogeneous liquid, wherein said energy means is selected from the group consisting of pressure change, adiabatic flashing, hydraulic impact, pressure shock wave, shear stress, local turbulence and cavitations.

Claim 4 (previously presented). The method of claim 1, wherein the energy means is supplied to each interface point in the solution.

Claim 5 (original). The method of claim 1, wherein the energy is formed through pressure drop.

Claim 6 (withdrawn). The method of claim 1, wherein the energy is in the form of shearing stress supplied to the interface region.

Claim 7 (withdrawn). The method of claim 1, wherein the energy is supplied by bringing the inter-phase region to an adiabatic boil.

Claim 8 (withdrawn). The method of claim 1, wherein the energy is supplied to the interface region in the form of hydraulic energy.

Claim 9 (withdrawn). The method of claim 8, wherein the hydraulic energy is supplied by a hydraulic hammer.

Claim 10 (withdrawn). The method of claim 1, wherein the energy is supplied to the inter-phase region in the form of an electromagnetic wave.

Claim 11 (withdrawn). The method of claim 1, wherein the electromagnetic wave is a blast wave.

Claim 12 (currently amended). A process for providing a substantially liquid homogenized composition from a substantially liquid heterogeneous composition containing particles, comprising:

providing a heterogeneous composition having an interface surface with said particles;

supplying energy in the form of discrete, ~~short~~ pulses of a given frequency to the interface surface in an amount sufficient to create vapor bubbles manifesting rapid radial growth and rapid collapse to produce particle dispersions within the nanometer size level ;

wherein said supplied energy is selected from the group consisting of pressure change, adiabatic flashing, hydraulic impact, pressure shock wave, shear stress, local turbulence and cavitations.